



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,833	07/25/2003	Masahiko Konno	TWA89USA	3736
7590	09/22/2005		EXAMINER	
George A. Smith, Jr. Box 457 Spring House, PA 19477			JOHNSON, VICKY A	
			ART UNIT	PAPER NUMBER
			3682	
DATE MAILED: 09/22/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/627,833	Applicant(s) KONNO, MASAHIKO	
	Examiner Vicky A. Johnson	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

*[Handwritten signature]*

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on July 25, 2003 has not been received, but the foreign document; JP2540896 has been received and considered by the examiner. Please submit the IDS form so that it may be signed and initialed by the Examiner.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 2-4 and 10-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2, 3, and 4 recite the limitation "the plunger" in lines 3, 5, and 5 respectively. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biedermann (US 4,713,043) in view of Loeffler (FR 2736123) and Suzuki et al (US 5,088,966).

Biedermann discloses a movable guide for an endless, flexible power transmission medium comprising an elongated slide rail (124) for sliding engagement with the transmission medium with the direction of elongation of the slide rail extending along the direction of travel of said transmission medium, a support extending along the slide rail in the direction of elongation thereof (unnumbered, see Fig 3), for supporting said slide rail, said support being pivotable (146) adjacent one end thereof, and having a plunger-contacting portion (140) adjacent an opposite end thereof, said elongated slide rail, said rail support, and said plunger-contacting portion being sandwich-molded.

Biedermann does not disclose the device having a unitary molded core composed of a first, high-strength polymer resin, parts of said unitary molded core forming interior parts of said rail, said rail support and said plunger-contacting portion, and a skin layer composed of a wear-resistant, second polymer resin, said skin layer entirely covering the outer surface of said core.

Loeffler discloses a device having a unitary molded core (30) composed of a first, high-strength polymer resin (abstract), parts of said unitary molded core forming interior parts of said rail, said rail support and said plunger-contacting portion (see Fig 2), and a skin layer composed of a wear-resistant, second polymer resin (abstract), said skin layer (13) entirely covering the outer surface of said core (see Fig 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Biedermann to include a skin layer as taught by Loeffler in order to decrease abrasion.

Biedermann does not disclose the device having the plunger-contacting portion having a convex shape and having an arc-shaped cross-section transverse to the direction of the elongation of the slide rail.

Suzuki et al disclose having a plunger-contacting portion (15) having a convex shape and having an arc-shaped cross-section transverse to the direction of the elongation of the slide rail (see Fig 17, and col. 2 lines 45-59).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Biedermann to include a plunger-contacting portion having a convex shape and having an arc-shaped cross-section as taught by Suzuki et al in order to prevent slipping (col. 1 lines 9-20).

Re claim 2, Biedermann shows the plunger-contacting portion includes a side wall (see Fig 4) for limiting lateral shift of the guide relative to the plunger of a tensioner, said side wall extending along the direction of travel of said transmission medium (see Fig 4).

Re claims 3 and 4, Biedermann shows the plunger-contacting portion has an outer surface with an arc-shaped longitudinal cross-section (see Fig 3), whereby the plunger-contacting portion may be maintained in contact with the axial center of the plunger of a tensioner, as the plunger moves toward and away from a transmission medium in sliding engagement with the slide rail.

6. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biedermann (US 4,713,043) in view of Loeffler (FR 2736123) and Suzuki et al (US

Art Unit: 3682

5,088,966) as applied to claims 1-4 above, and further in view of Fujiwara et al (US 6,428,899).

Biedermann discloses a guide as described above made from a first glass fiber reinforced resin, and a second polymer resin having wear resistant properties.

Biedermann does not disclose the first polymer resin being a glass fiber-reinforced polyamide 66 resin, and said second polymer resin is a polyamide 66 resin or a polyamide 46 resin.

Fujiwara et al teaches the use of a chain guide made of a glass fiber-reinforced polyamide 66 resin. Fujiwara et al also teaches the use of a polyamide 46 resin for a chain guide because it is optimum for wear resistance.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a glass fiber-reinforced polyamide 66 resin as the first polymer of Biedermann, and use polyamide 46 resin as the second polymer of Biedermann in view of the teaching of Fujiwara et al in order to reduce cost and increase wear resistance.

### ***Response to Arguments***

7. Some further comments regarding the applicant's remarks are deemed appropriate.

The applicant argues that "the plunger" of claims 2, 3, and 4 are not claim elements and therefore, do not have to have proper antecedent basis. Each and every limitation of a claim must have proper antecedent basis or the claim is indefinite. Each limitation of the claim is a claim element, because it makes up the claim as a whole.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

The applicant's remarks have been accorded due consideration, however, they are not deemed fully persuasive.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

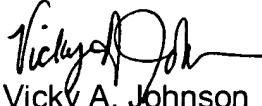
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vicky A. Johnson whose telephone number is (571) 272-7106. The examiner can normally be reached on Monday-Friday (7:00a-3:30p).

Art Unit: 3682

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Bucci can be reached on (571) 272-7099. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 9/16/00  
Vicky A. Johnson  
Examiner  
Art Unit 3682